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### UNITED STATES DEPARTMENT OF AGRICULTURE Federal Crop Insurance Corporation Washington 25, D. C.

June 21, 1945

Dear Sir:

Enclosed herewith are two documents summarizing the results of the discussions of the conference on citrus fruit insurance held in Washington June 4 - 13. One is an outline of a tentative plan worked up by representatives of the Citrus Advisory Committees and the Federal Crop Insurance Corporation. The other is a tentative draft of the regulations which would essentially be the terms of the insurance contract.

This material is all tentative -- to be used for further consideration by the committees in the respective states and is not intended as anything final or for publication.

We would like to have the Advisory Committees on Citrus Crop Insurance that have been selected give careful consideration to this material to determine whether or not the provisions would be workable in their states and to submit such further recommendations to the Corporation as they feel necessary. Final determination of the plan to be used will be made by the Board of Directors of the Corporation but full consideration will be given to the recommendations of the Advisory Committees.

We wish to take this opportunity to express our appreciation of the time and effort given to this work by representatives of the committees who came to Washington. We feel that they showed broad national interest in the program rather than localized interest and recognized that the greatest good could come to the citrus industry by the development of a plan that would be workable and sound if later applied by Congress to the whole industry.

Very truly yours,

Wellinderson

Federal Crop Insurance Corporation
June 18, 1945

OUTLINE OF TENTATIVE PLAN FOR CROP INSURANCE OF CITRUS FRUIT DRAWN UP BY REPRESENTATIVES OF CITRUS PRODUCERS AND OF THE FEDERAL CROP INSURANCE CORPORATION

(For discussion purposes only -- not for publication)

1. Federal crop insurance on a trial basis would be made available in 1946 in representative counties in Florida, Texas, Arizona, and California. This insurance would apply to the 1946-47 crop. It would be desirable that the taking of applications begin in November this year. This insurance would not apply to the crop of fruit on the tree at that time but only to the 1946-47 crop.

#### 2. Kinds of Fruit and Varieties to Be Insured

Due to the shortage of time available it may be necessary to confine the insurance on the 1946-47 crop to the following kinds of fruit and varieties:

Florida - oranges - early, mid-season, and late

Texas - grapefruit Arizona - grapefruit

California - oranges - navels and valencias

If it is possible the following kinds of fruit and varieties should be added to the above list for 1946-47 crops:

Florida - grapefruit

Texas - oranges - early and late varieties
Arizona - oranges - early and late varieties

California - lemons

Oranges of mandarin types would not be covered.

#### 3. Unit for Insurance

It is contemplated that one contract will cover a grove or group of groves. Nevertheless, under this contract it would be possible to have separate units for insurance and separate loss adjustments by kinds of fruit and also by varieties. Thus in California it would be possible to have a separate loss adjustment for navel oranges and valencia oranges, or in Florida for early, mid-season, and late varieties of oranges. During most of the discussions a plan of this type was contemplated -- recognizing, however, that the premium basis for such a plan would be higher than if all varieties of oranges were grouped together under one unit for loss adjustment. If all varieties of a kind of fruit were insured as a unit the losses from freeze on late varieties might be partially offset by normal or above normal production on the early varieties.

It was suggested that even if the above plan were followed, if any kind or variety of fruit constituted less than 15 percent of the average production for the grove that one loss adjustment should be made grouping all kinds

of fruit and varieties as a unit. An exception to this could be made if the minor variety, although less than 15 percent, represented a large production and the premium for such minor variety was equal to or in excess of the minimum premium requirement for the grove.

On the last day of the conference further consideration was given to the possibility of insuring on the basis that there would be one loss adjustment for each kind of fruit -- not for each variety. Two problems arise here, one of determining a premium rate applicable to groves of mixed varieties and one of determining a cash equivalent price applicable to mixed varieties. In the case of a combination premium rate it is believed that separate rates might be established for each variety with some sort of a scale that might be devised to determine the rate for groves with different proportions of each variety. Work is in progress at the present time to determine some such a scale -- or at least a method that might be used. It would be possible for the insured to select as the price basis for premiums and indemnities the variety of fruit representing the major volume of his production but perhaps a better way would be to use as a price basis a combination of the different varieties weighted according to the average production of each variety. The advantage of grouping all varieties together under one unit for loss adjustment would be that the premium rate would be less under such a plan than under separate loss adjustments by varieties. It would provide basic insurance protection at a more reasonable price.

#### 4. General Plan of Insurance

The general plan of insurance to be used would be one of insurance against loss of yield with supplemental protection against quality losses on substandard fruit resulting from causes beyond the control of the insured. Optional coverages of either 75 percent or 50 percent of the average production would be offered. The coverage, the premium and the indemnity would be determined in physical units (standard packed box for the state or its equivalent).

The indemnity in boxes would be the amount by which the production was less than the amount of insurance coverage in boxes. In determining the production standard fruit would be counted on a full basis. Substandard fruit would also be counted as production, but on a reduced basis. This basis would be calculated by multiplying the number of boxes of substandard fruit by the ratio of (1) the weighted average on-tree price of all fruit during a designated period following the damage to (2) the weighted seasonal average on-tree price of the kind or variety of fruit covered by the unit of insurance.

The following illustration sets forth the proposed plan:

# Illustration of Yield Insurance - Modified for Quality Damage

Under this coverage, the grower will be insured that his production of standard fruit, plus the equivalent production of substandard fruit will not fall below 75 percent of his average annual production for the base period.

Annual average production for base period Insurance coverage, 75% of 4000	4000 boxes 3000 boxes
Actual production Standard fruit	2000 boxes
Substandard fruit 600 boxes	
Number of boxes counted as production* (2/3 of 600 boxes)	400 boxes
Total production	2400 boxes
Indemnity (3000 boxes - 2400 boxes)	600 boxes
Indemnity in dollars (600 boxes at \$1.50)	\$900.00

\*Weighted average price of all fruit for designated period following damage - \$1.00; weighted average price of all fruit for marketing season-\$1.50; ratio \$1.00 : \$1.50 = 2/3.

### 5. Coverage

The amount of coverage would be the percentage (75 or 50) of the average production for the kind of fruit or variety thereof insured. The average production would be adjusted for the increased age of the trees in the period of insurance, and would take care of the fact that the trees were older and larger in the year of insurance than they were during the period of years upon which the average production is based. Several months before the application period, forms would be made available in the selected counties for persons interested in insurance to submit their production records for previous years. The records of production would have to be authenticated in such manner as is satisfactory to the Corporation. The record should also show the information regarding the number of trees and crop year planted. This will provide an opportunity for the Corporation to review the data, use them in some of the actuarial computations, and quote a coverage to the prospective applicant before he submits his insurance application.

The number of years which this record should cover will vary with the different areas. It is probable that 4 to 6 years' data will be the maximum amount that will be generally available. While this period may be satisfactory for determining the relation in level of coverage between the different groves, it may be that some adjustment will be needed for all groves to reflect average production over a longer or more representative period of years.

In connection with the actuarial work carried on by the Corporation, records on sample groves will be obtained for a longer period of years. These longer records for sample groves will serve as the basis for actuarial computations of representative premium rates and will also serve to determine what adjustment to short-time records of yields may be necessary to reflect productivity over a representative period.

### 6. Premium Rates

There should be a variation between premium rates on different groves to reflect differences in risks. One way to do that would be to calculate from the production history the loss experience on such groves and to compute a premium rate therefrom by some formula. It appears, however, that the number of years of data for individual groves will in many cases be very limited -- too limited for calculation of reliable loss experience. Furthermore, loss experience on individual groves computed from past records are subject to accidental fluctuations, particularly, if the grove record is for a short period of years. It appears, therefore, that if individual grove premium rates are to be established, that differences in rates between groves will have to be determined largely from a knowledge of the risks to which the grove is subjected. To do this an inspection should be made of the grove before a premium rate is determined. It is contemplated that an average or typical premium rate for the area will be established by the Corporation in connection with its actuarial work and that deviations within a limited range from this average or typical figure for individual groves, should be made by a local committee together with a Corporation representative taking into account all the factors of risk that are involved. Some of the factors that should be considered are: (1) general examination of the production data available; (2) an inspection of the grove, (3) heating equipment (in some areas), (4) size of the acreage covered, (5) proportion of late varieties, and

Premium rates should be expressed in percentage of the average production for the grove. This would be a deviation from the past practice of the Corporation which has been to establish a rate per acre, generally disregarding the amount of coverage. It was believed by the representatives at the meeting that a rate expressed as a percentage would be more in line with commercial insurance practice, better understood and more acceptable to citrus growers. There was considerable discussion as to whether the rate should be expressed in percentage of the coverage or in percentage of the average production. The general opinion was that the rate expressed as a percentage of the average production would be more desirable than one expressed as a percentage of the coverage; that a better comparison could be obtained on such basis between the rate for 75-percent coverage and the rate for 50-percent coverage. The choice between the two methods of quoting a premium rate is probably largely a matter of psychology.

(6) general knowledge of the grove and the management thereof.

### 7. Cash Equivalent Prices

The amount of the premium and amount of the indemnity would each be determined first in boxes and later would be converted to a dollar basis at a cash equivalent price. The price would be the same for premiums and indemnities each year and should be the seasonal average on-tree price by varieties for the district. The prices determined by the Bureau of Agricultural Economics of the U. S. Department of Agriculture would perhaps be a satisfactory basis for determining the seasonal average. This is a price received by producers and on a state basis. It was believed that a state average price as of any particular date would be satisfactory for local areas where insurance was offered but that in determining the seasonal average price for the district the weighting of the prices at different dates would have to be according to the volume marketed (by months) for the district rather than for the state.

# 8. Grove Production Record and Inspection

Forms should be available in selected counties at an early date on which prospective applicants for insurance might furnish production history and tree data. Information should be available in the county as early as possible regarding the representative or typical premium rate required with perhaps an established range about this representative figure. Before the premium rate can be definitely established an inspection of the grove would be necessary. For this inspection it has been proposed that a \$5 fee be charged. In the event that insurance is written on the grove the \$5 would be applied toward the premium. In the event the insurance was applied for and the application not accepted by the Corporation the fee would be refunded. In the event no application for insurance is filed after inspection and detemination of the premium rate, the fee would be retained. The charging of this fee would prevent a large number of requests for inspections and establishment of premium rates merely for informational purposes without serious intent to apply for insurance. It was believed that in general the cost of an inspection would be about \$5. There was not entire agreement on the charging of a fee for an inspection. Some of the representatives thought that charging of this fee would reduce the amount of participation. Others felt that the amount was not large in comparison with the value of the production from the grove and that it would not be a deterent to insurance by most producers. Production credit associations charge a fee for an inspection of groves in advance of making loans so that there is a precedent for such action.

## 9. Application for Insurance

With the data sheet available and an inspection made, it would be possible for an average production and premium rate figure to be given to the producer. He could then submit his application for insurance if he desired. In the application the grove would be definitely described including the location, ownership and possibly the acreage, number of trees, varieties, and age. Groves under the same ownership that are not contiguous could be covered under the same contract. (By combining groves that are non-contiguous it is possible that a somewhat lower premium rate might be obtained.) Applications would not be accepted for groves that were considered non-insurable because of the risks.

KIND OF BUILDING

Separate application would be filed for each grove for which insurance was desired. This application would cover all kinds and varieties of insurable fruit in the grove although separate loss adjustments would be made on different kinds of fruit and possibly on different varieties.

It is believed that if possible the Corporation should start accepting applications in November. The following closing dates for accepting applications were recommended: February 1, Texas and Florida; February 15, California and Arizona. Some time would elapse between the submission of applications and the acceptance of the applications by the Corporation. Should a freeze occur during this period which affected the trees and the probable productivity in 1946-47, the Corporation would be in a position to reject the application. It was suggested at one time that an early date should be established before any possibility of freeze and applications submitted before this date should be accepted regardless of freeze that might occur between the time of filing of the application and acceptance by the Corporation. This thought, however, was discarded on the assumption that about a month would be required between filing of applications and final acceptance by the Corporation.

If the Corporation considered it advisable another application period should be established later in the season after the prospective crop could be estimated. An application would be accepted only after an inspection of the condition of the growing crop and only if the prospect was for a production equal to or above the average production for the grove. The following dates for the second application period have been suggested: Texas, June 1 to September 1; Florida, July 1 to September 1, California and Arizona, August 15 to October 15. It was believed that after the crop was well started that no great risk would be incurred if acceptance was on the basis of an inspection of the crop. In fact, many felt that the loss would be less on insurance written at this later time and after an inspection, because part of the risks will already have been incurred and final decision would be up to the Corporation. However, the same premium rate would be charged for insurance whether the application was made during the early period or during the late period. This would encourage the writing of insurance during the early period. Minimum participation requirements would have to be met during the first period or insurance would not go into effect.

## 10. Premiums

The application for insurance would include a commodity premium note. The amount of premium in dollars would not be established until the end of the marketing season. However, cash payments to be applied on the note would be accepted in advance subject to final determination of the cash equivalent price per box at the end of the marketing season. Cash payment on the basis of an estimated price would be required to be made on the note prior to the closing date unless the applicant provided security such as an order on his marketing agency to pay the premium out of returns to him. Interest at the rate of one-half of one percent a month would be charged on any unpaid balance on the note after the closing date. The interest would apply only on the number of boxes of premium unpaid. In other words, if the premium were paid on an estimated price that later proved inadequate, no interest

would be charged on the remaining balance due. The premium notes would mature not later than 30 days after the end of the marketing season for the latest variety covered. However, deduction for the premium would be made out of any earlier indemnities paid.

A minimum premium for the contract would be established at the equivalent (in standard boxes for the state) of 2500 pounds of fruit for insurance on the basis of 75-percent coverage. Thus, no premium for 75-percent coverage would be less than this amount but 50 percent insurance would be available for a smaller premium. This is justified on the grounds that if a grove is eligible for insurance under 75-percent insurance it should also be eligible under 50-percent insurance.

### 11. Transfer of Insurance

The insurance could be transferred with a transfer of interest in the crop only upon written agreement of the transferor and the transferee. The transferee would have to agree to be jointly liable for the payment of the premium. Unless such transfer of insurance was arranged prior to the transfer of interest on the crop, the insurance would lapse temporarily but could be reinstated during a 15-day period. The transfer would be subject to any collateral assignment given by the transferor.

### 12. Collateral Assignment

A collateral assignment would be provided for so that the insured might use his insurance contract as a basis for obtaining credit.

### 13. Local Administration

Local administration of the program would be by the county AAA committee through a subcommittee composed entirely or largely of citrus producers. The selling of such insurance would be the responsibility of the county AAA committee. All sales to be made on a commission basis.

Because of the special features of citrus insurance as compared to insurance of other commodities it has been proposed that the Corporation should have a representative in each area who is thoroughly familiar with the production of citrus fruit in that area. This representative would have general responsibility with the AAA committee for the citrus insurance, would adjust some of the losses and would train whatever additional adjusters are necessary. Such local adjusters would, of course, be familiar with citrus production. Because of the fact that losses will probably be heavy in some years and light in others, it was believed that it would be necessary to have a considerable number of adjusters trained so that they would be prepared in event of serious loss in the area. Such persons would not be permanent employees but paid only when actually employed.

### 14. Quality Adjustment

The method for determining the amount of indemnity due to loss of quality was a subject of much discussion during the meetings. The plan finally determined upon is the one shown in the illustration on page 3. This plan

seemed at the time to be the best one available but was not considered as entirely satisfactory and it was believed that further consideration might be needed. Essentially the plan is as follows: First it would be necessary to determine that the fruit was substandard. Substandard fruit is defined in the regulations as fruit damaged by a cause insured against and which is marketed by the insured at a discount either because of such damage or because of similar damage generally in the area. To effect an indemnity for such loss in quality the number of boxes of substandard fruit would not be counted in full as production but a factor would be applied thereto reducing the number of boxes to essentially its equivalent in standard fruit. Thus the reduction from the full number of boxes to the "equivalent" number of boxes would be the measure of indemnity for reduction in quality. The determination of this factor would not be based upon the relationship of the price for the substandard fruit to the market average price for all fruit for the season because such a plan would provide no incentive for the insured to obtain the best price available for his substandard fruit. For example: Suppose the market average for the season of all fruit of the kind or variety insured was \$1.50 per box. If the insured obtained \$1.00 a box for his substandard fruit, the insured would be indemnified for the loss of 50¢ a box. If the fruit was sold for 85¢ the insured would be indemnified for 65¢ a box. Thus essentially the indemnity would bring the price received up to the market average for the season. Therefore, there would be no incentive to sell at the best price available.

To eliminate this difficulty it was proposed that the adjustment factor should be based upon the ratio of (1) the on-tree average price for fruit of the insured kind or variety sold during a specified period following general fruit damage to (2) the seasonal average on-tree price for such fruit. Thus the discount on price for which the insured would be indemnified would be the difference between the average market price for the season and the average market price for this restricted period and there would always then be an incentive for the insured to obtain the best price available.

There are several defects in this method. Its operation is apparently confined to cases of widespread damage in the area and not adaptable for cases of isolated damage on individual groves. In the second place it is questionable whether the real financial loss in all cases is reflected by the difference between the average on-tree price following the period of freeze and the average seasonal on-tree price. To indemnify the producer for damage to his fruit which is sold in months of normally low prices by the extent to which the average for that period is below the seasonal average may represent an excessive amount of indemnity. There may be some inequity between the producer who attempts to sell most of his fruit in the fresh fruit market as compared with the producer who normally sells most of his fruit to processors.

It appears that this provision should be given further consideration to see if it meets the need in isolated cases of damage and if it is the best formula in cases of general damage.

The Corporation would not be liable for losses arising from a quarantine.

## 15. Alternating Production

It has been suggested that particularly in Arizona where production varies substantially in alternate years that a plan should be considered whereby the amount of coverage would also be varied in alternate years depending on the history of year to year fluctuations in production for the grove. Perhaps in working up data for other areas the records of production should be watched for alternating year to year production and this plan might be found advisable in some groves in other areas as well as Arizona.

## 16. Proposed Counties for Insurance

It is proposed that insurance be tried in Florida in Polk, Lake and Orange Counties; in Texas in Cameron and Hidalgo Counties; in Arizona in Maricopa County; in California in Tulare County with a local producing area included in Fresno County, San Bernardino County with local producing areas in Los Angeles and Riverside Counties, and in Orange County. It has been recommended also that Ventura County be included for insurance of lemons if insurance on that commodity can be made available on the 1946-47 crop. If this insurance cannot be made available it has been proposed that Los Angeles County be included for oranges.

